

IN THE CLAIMS

Please amend the Claims as follows:

1 (Currently Amended). A semiconductor stacking structure comprising:

a first semiconductor die; device; and

a flexible tape substrate having at least one metal layers for electrical connections wherein the flexible tape substrate is coupled to a bottom surface of the first semiconductor device die; via the metal layers, the flexible substrate being folded over on at least two sides to form flap portions which are coupled to an upper surface of the first semiconductor device, the flap portions not everlapping one another and covering only a portion of the upper surface of the first semiconductor device which is smaller than the upper surface of the first semiconductor device, the flexible substrate used for stacking additional semiconductor devices on the flap portions wherein the additional semiconductor devices are coupled to the metal layers of the flexible substrate;
and

wirebonds for electrically coupling the semiconductor die to the metal layer; and

an encapsulant covering the semiconductor die and the wirebonds;

wherein the flexible tape substrate further comprises a plurality of flap portions and each flap portion is folded along a side surface and an upper surface of the encapsulant;

wherein the flap portions do not overlap one another and
cover only a portion of the upper surface of the encapsulant;
wherein the folded flap portions have an exposed metal layer.

2 (Currently Amended). A semiconductor stacking structure in accordance with Claim 1 further comprising an adhesive layer which is placed on the flap portions of the flexible tape substrate and which couples the flap portions to the upper surface of the encapsulant first semiconductor device.

3 (Currently Amended). A semiconductor stacking structure package in accordance with Claim 1 further comprising an adhesive layer which is placed on the upper surface of the encapsulant first semiconductor device and which couples the flap portions to the encapsulant first semiconductor device.

4 (Currently Amended). A semiconductor stacking structure in accordance with Claim 1 further comprising a second semiconductor device coupled to the flap portions of the flexible tape substrate.

5 (Currently Amended). A semiconductor stacking structure in accordance with Claim 4 wherein the second semiconductor device is coupled to the flap portions of the flexible tape substrate after the flap portions are folded over and coupled to the encapsulant first semiconductor device.

6 (Currently Amended). A semiconductor stacking structure in accordance with Claim 4 wherein the ~~second~~ semiconductor device is coupled to the flap portions of the flexible tape substrate before the flap portions are folded over and coupled to the encapsulant ~~first semiconductor device~~.

7 (Original). A semiconductor stacking structure ~~package~~ in accordance with Claim 1 wherein the semiconductor stacking structure is a LGA (Land Grid Array) device.

8 (Original). A semiconductor stacking structure in accordance with Claim 1 wherein the semiconductor stacking structure is a BGA (Ball Grid Array) device.

9 (Original). A semiconductor stacking structure in accordance with Claim 1 wherein the semiconductor stacking structure is a lead type of device.

10 (Currently Amended). A semiconductor stacking structure in accordance with Claim 1 wherein the flexible tape substrate is folded over on four sides to form flap portions which are coupled to the upper surface of the encapsulant ~~first semiconductor device~~ and covers only a portion of the upper surface of the encapsulant ~~first semiconductor device~~.

11 (Currently Amended). A semiconductor stacking structure comprising:

a first semiconductor die; device; and
means for interconnection having at least one metal layers for electrical connections coupled to a bottom surface of the first semiconductor die; device via the metal layers for forming the semiconductor stacking structure; wherein the means is folded over on at least two sides so as to not overlap and coupled to an upper surface of the first semiconductor device and covers only a portion of the upper surface of the first semiconductor device which is smaller than the upper surface of the first semiconductor device, the flexible substrate used for stacking additional semiconductor devices on folded over portions of the means, the additional semiconductor devices coupled to the metal layers of the means.

wirebonds for electrically coupling the semiconductor die to the metal layer; and

an encapsulant covering the semiconductor die and the wirebonds;

wherein the interconnection means further comprises a plurality of flap portions and each flap portion is folded along a side surface and an upper surface of the encapsulant;

wherein the flap portions do not overlap one another and cover only a portion of the upper surface of the encapsulant;

wherein the folded flap portions have an exposed metal layer.

12 (Currently Amended). A semiconductor stacking structure in accordance with Claim 11 further comprising an adhesive layer placed on the means for coupling the interconnection means to the upper surface of the encapsulant ~~first semiconductor device~~.

13 (Previously Cancelled).

14 (Previously Cancelled).

15 (Previously Cancelled).

16 (Previously Cancelled).

17 (Previously Cancelled).

18 (Previously Cancelled).

19 (Previously Cancelled).

20 (Previously Cancelled).

21 (Currently Amended). A semiconductor stacking structure comprising:

a first semiconductor die; device; and
means for interconnection having at least one metal layers for
electrical connections coupled to a bottom surface of the first
semiconductor die; device via the metal layers for forming the
semiconductor stacking structure; wherein the means is folded over
on at least four sides so as to not overlap and coupled to an upper
surface of the first semiconductor device and covers only a portion
of the upper surface of the first semiconductor device which is
smaller than the upper surface of the first semiconductor device,
the flexible substrate used for stacking additional semiconductor
devices on folded over portions of the means, the additional
semiconductor devices coupled to the metal layers of the means.

wirebonds for electrically coupling the semiconductor die to
the metal layer; and

an encapsulant covering the semiconductor die and the
wirebonds;

wherein the interconnection means further comprises at least
four flap portions and each flap portion is folded along a side
surface and an upper surface of the encapsulant;

wherein the flap portions do not overlap one another and
cover only a portion of the upper surface of the encapsulant;

wherein the folded flap portions have an exposed metal layer.

22 (Currently Amended). A semiconductor stacking structure in accordance with Claim 21 further comprising means placed on the flap portions of the flexible substrate for coupling the flap portions to the encapsulant first semiconductor device.

23 (Currently Amended). A semiconductor stacking structure package in accordance with Claim 21 further comprising means placed on the upper surface of the encapsulant first semiconductor device for coupling the flap portions to the encapsulant first semiconductor device.

24 (Currently Amended). A semiconductor stacking structure in accordance with Claim 21 further comprising a second semiconductor device coupled to the flap portions of the coupling means flexible tape substrate.

25 (Currently Amended). A semiconductor stacking structure in accordance with Claim 24 wherein the second semiconductor device is coupled to the flap portions of the coupling means flexible tape substrate after the flap portions are folded over and coupled to the encapsulant first semiconductor device.

26 (Currently Amended). A semiconductor stacking structure in accordance with Claim 24 wherein the ~~second~~ semiconductor device is coupled to the flap portions of the coupling means flexible tape substrate before the flap portions are folded over and coupled to the encapsulant ~~first semiconductor device~~.

27 (Cancelled).

28 (Cancelled).

29 (New). A semiconductor stacking structure in accordance with Claim 1 further comprising an adhesive for coupling the semiconductor die to the flexible tape substrate.

30 (New). A semiconductor stacking structure in accordance with Claim 11 further comprising an adhesive for coupling the semiconductor die to the means.